Daily Diary Report by Bid Item

Contract No.: **04-0120F4**

Diary #: **815** **Const Calendar Day:** 302 **Date:** **02-Apr-2013** **Tuesday**

Inspector Name: **Bruce, Matt** **Title:** **Transportation Engineer**

Inspection Type: Continuous

Shift Hours: 07:00 am 05:30 pm **Break:** 00:30 **Over Time:** 02:00

Federal ID:

Location:

Reviewer: **Schmitt, Alex** **Approved Date:** **Status:** Submit

04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge

Weather

Temperature **7 AM** 50 - 60 **12 PM** 50 - 60 **4PM** 50 - 60

Precipitation 0.00" **Condition** Cloudy to partly cloudy

Working Day ☐ If no, explain:

Diary: Dispute ☐

Work description.

- Inspected the stressing operation to verify the Pjack load in tower foundation anchor rods with Sami Daouk, see his diary for the ABF ironworker names. Today Boltight pump number 59836-0577000106 with gauge number 29901041/18 was used for verifying the loads in all rods mentioned below. Similarly Boltight jacks RN7194, RN7197 and RN 7208 was used for this stressing operation. Sami took the majority of measurements on the anchor rods stressed today from the top surface of the bearing plate to the end of the anchor rod before and after load verification of the anchor rods. Also took initial measurements of the anchor rods in the remaining locations prior to stressing operations commencing.

Stressing operations began today promptly at 7:00am in the North diaphragm. Other locations where anchor rod force verification was done included the South diaphragm, and the Inner East/West diaphragms. As in previous days all 3" anchor rods were stressed to 105% of Pjack. The majority of the nuts were found to be loose today and three stressing cycles were run to Pjack at 13.2ksi.

While attempting to verify the load in anchor rod pair a1(S)03 and 04 to 13,200psi, the ram on rod 04 began to rise prior to the Pjack load. The ram on anchor rod 04 began to rise at a pressure of 11,500psi as the stressing operation was stopped to resolve this issue. Possible explanations of why this rod would not hold pressure included bad threads of the either the nut/rod, might not have been stressed in 2010, or possibly a broken/fractured anchor rod. The anchor rod was observed to be raised up and down approximately 4mm when stressed/unstressed. The nut on the rod couldn't be turned which is the primary issue with this anchor rod holding Pjack load. Immediately after this happened I called ABF engineer Andre Markarian and Mohammed Awal to inform them of the situation.

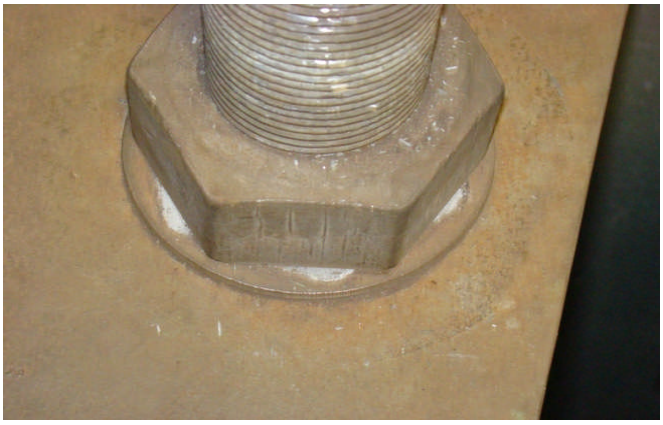
While proceeding with stressing anchor rods S05 and S06 the same phenomena occurred to rod S05 as did in rod a1(S)04. Three cycles (12.0ksi, 12.5ksi, and 11.5ksi) were executed on these rods in an attempt to tighten the nut down on rod S05. After three iterations to try and turn the nut the ABF ironworkers proceeded to stress anchor rods a2(S)01 and 02. The threads on these two rods needed to be cleaned and filed down since the jack "puller" couldnt be fastened all the way to the jack "tensioner or jack ram".

After spending 40 minutes on cleaning/filing these threads to fasten the "puller" with no success, the ABF ironworkers proceeded to verify the anchor rod force in the Inner East/West diaphragms. While in the Inner West diaphragm there was an attempt to verify the load on anchor rod b2(W)01. There is a note on the steel near this rod that reads "Loud Pop Holds 10,500psi". When attempting to verify the load in this rod the gauge dial flickered back and forth with the ironworkers near the jack hearing a popping noise informing the foreman operating the pump to stop. This rod was abandoned and the two other anchor rods b2(w)02/03 in this set were verified at 13.2ksi.

It also should be noted that ABF engineer Andre Markarian was briefly present for a few of the anchor rods being stressed today.

Attachment

ABF ironworkers mobilizing jacks on anchor rods in a diaphragm seen from the first tower access platform.



The amount that the typical anchor rod nut was turned today after tightening under a Pjack pressure of 13.2ksi multiple times.